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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,734	05/22/2007	Richard Martin	06-132-A1	5512

63572 7590 02/02/2011

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SUITE 3100
CHICAGO, IL 60606

EXAMINER	
JAISLE, CECILIA M	

ART UNIT	PAPER NUMBER
1624	

MAIL DATE	DELIVERY MODE
02/02/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/595,734	MARTIN ET AL.	
	Examiner	Art Unit	
	Cecilia M. Jaisle	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-11,13,14 and 31-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-11,13,14 and 31-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

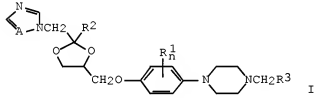
DETAILED OFFICE ACTION

Rejections Under 35 USC 102

The following is a quotation of the appropriate paragraphs of 35 USC 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-11, 13, 14, 31-36 and 40 are rejected under 35 USC 102(b) over Kampe, et al., US 4859670, issued 19890822.



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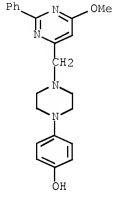
Formula I Compositions [R1=C1-3 alkyl, F, Cl; R2 = naphthyl, thienyl, halothienyl, (substituted) Ph; Y=(substituted) phenylpyrimidinyl, phenylpyridyl, quinolyl, isoquinolyl; A=CH, N; n=0-2] were prepared as medicinal fungicides. See especially compositions of RN 111921-21-2, Phenol, 4-[4-[(6-methoxy-2-phenyl-4-pyrimidinyl)methyl]-1-piperazinyl]-,



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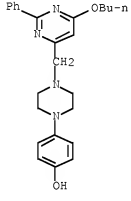
111921-25-6, Phenol, 4-[4-[(6-butoxy-2-phenyl-4-pyrimidinyl)methyl]-1-piperazinyl]-,



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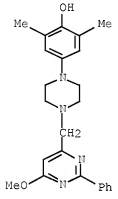
111921-26-7, Phenol, 4-[4-[(6-methoxy-2-phenyl-4-pyrimidinyl)methyl]-1-piperazinyl]-2,6-dimethyl-,



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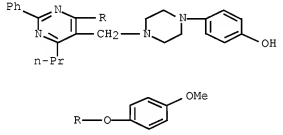
111921-44-9, Phenol, 4-[4-[[4-(4-methoxyphenoxy)-2-phenyl-6-propyl-5-pyrimidinyl]methyl]-1-piperazinyl]-,



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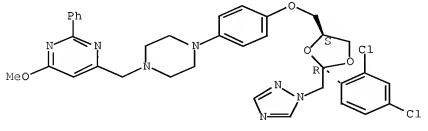
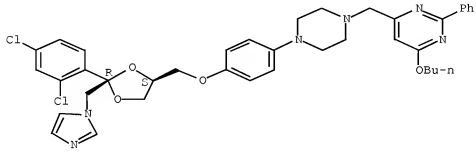
111920-67-3, Pyrimidine, 4-[[4-[4-[[(2R,4S)-2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]methyl]-6-methoxy-2-phenyl-, rel-,



,

111920-68-4, Pyrimidine, 4-butoxy-6-[[4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-

ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]methyl]-2-phenyl-, cis-,



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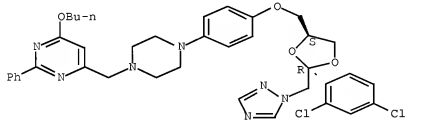
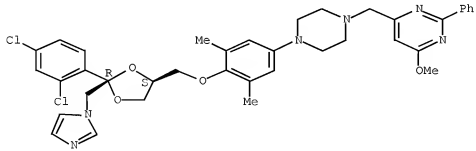
111920-69-5, Pyrimidine, 4-butoxy-6-[[4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]methyl]-2-phenyl-, cis-,



,

And 111920-75-3, Pyrimidine, 4-[[4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)- 1,3-dioxolan-4-yl]methoxy]-3,5-dimethylphenyl]-1-piperazinyl]methyl]-6-methoxy-2-phenyl-, cis-,



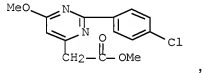
, as medicinal fungicides.

Response To Applicants' Remarks of 12-20-2010

In order to make the present rejection more understandable, the structures of the relevant compositions are illustrated above. As one of ordinary skill in this art can plainly see, each of the above Kampe compositions anticipates the present claims.

Claims 1, 11, 13, 31 and 40 are rejected under 35 USC 102(b) over Howe, et al., J. Med. Chem. (1972), 15(10), 1040-5, describing compositions of

RN 19899-98-0, 4-Pyrimidineacetic acid, 2-(4-chlorophenyl)-6-methoxy-, methyl ester,



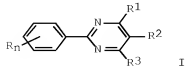
,

as an anti-inflammatory.

Response To Applicants' Remarks of 12-20-2010

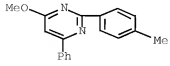
In order to make the present rejection more understandable, the structures of the relevant compositions are illustrated above. As one of ordinary skill in this art can plainly see, the above Howe compositions anticipate the present claims.

Claims 1-6, 8-11, 13, 14 and 31-36 are rejected under 35 USC 102(b) over Seiler, et al., EP 136976, published 19850410.



I

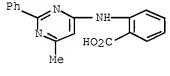
The phenylpyrimidines I (R = H, halo, NO2, CN, OH, alkyl, etc.; R1 and R2 = H, halo, alkyl, alkoxyalkyl, etc.; R3 = H, halo, alkyl, haloalkyl, or Ph) are plant growth regulators. See especially compositions of RN 77232-23-6, Pyrimidine, 4-methoxy-2-(4-methylphenyl)-6-phenyl-,



Response To Applicants' Remarks of 12-20-2010

In order to make the present rejection more understandable, the structures of the relevant compositions are illustrated above. As one of ordinary skill in this art can plainly see, the above Seiler composition anticipates the present claims.

Claims 37 and 38 are rejected under 35 USC 102(b) over Falch, et al., J. Med. Chem. (1968), 11(3), 608-11, describing RN17173-99-8, Benzoic acid, 2-[(6-methyl-2-phenyl-4-pyrimidinyl)amino]-, hydrochloride,



, with antiinflammatory activity.

Rejections Under 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

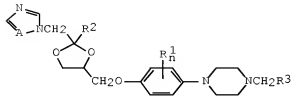
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of claims under 35 U.S.C. 103(a), the examiner presumes the subject matter of the various claims was commonly owned when any inventions covered therein were made absent any contrary evidence. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider applicability of 35 USC 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 USC 103(a).

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6, 8-11, 13, 14, 31-36 and 40 are rejected under 35 USC 103(a) over Kampe, et al., US 4859670, issued 19890822.



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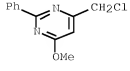
, as discussed above. Compositions of formula I [R1=C1-3 alkyl, F, Cl; R2 = naphthyl, thienyl, halothienyl, (substituted) Ph; Y=(substituted) phenylpyrimidinyl, phenylpyridyl, quinolyl, isoquinolyl; A=CH, N; n=0-2] were prepared as medicinal fungicides. See especially compositions of RN 111921-72-3, Pyrimidine, 4-(chloromethyl)-6-methoxy-2-phenyl- ,



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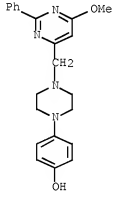
111921-21-2, Phenol, 4-[4-[(6-methoxy-2-phenyl-4-pyrimidinyl)methyl]-1-piperazinyl]-,



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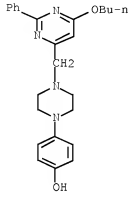
111921-25-6, Phenol, 4-[4-[(6-butoxy-2-phenyl-4-pyrimidinyl)methyl]-1-piperazinyl]-,



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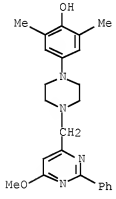
111921-26-7, Phenol, 4-[4-[(6-methoxy-2-phenyl-4-pyrimidinyl)methyl]-1-piperazinyl]-2,6-dimethyl-,



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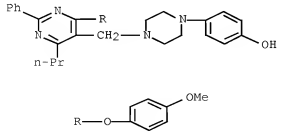
111921-44-9, Phenol, 4-[4-[[4-(4-methoxyphenoxy)-2-phenyl-6-propyl-5-pyrimidinyl]methyl]-1-piperazinyl]-,



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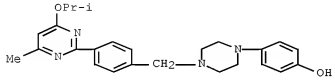

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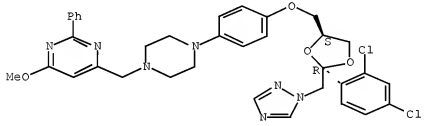
111920-67-3, Pyrimidine, 4-[[4-[4-[[(2R,4S)-2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]methyl]-6-methoxy-2-phenyl-, rel-,



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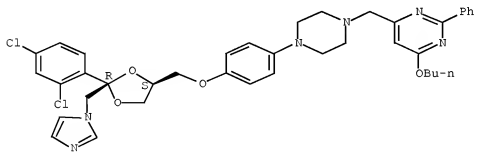
111920-68-4, Pyrimidine, 4-butoxy-6-[[4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]methyl]-2-phenyl-, cis-,



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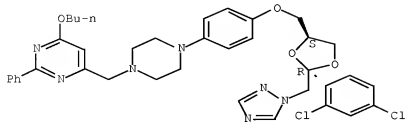
111920-69-5, Pyrimidine, 4-butoxy-6-[[4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]methyl]-2-phenyl-, cis-,



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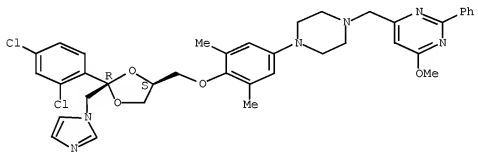
111920-75-3, Pyrimidine, 4-[[4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]-3,5-dimethylphenyl]-1-piperazinyl]methyl]-6-methoxy-2-phenyl-, cis-,



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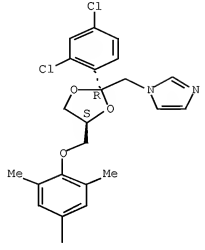
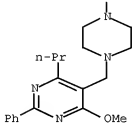
111920-90-2, Pyrimidine, 5-[[4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]-3,5-dimethylphenyl]-1-piperazinyl]methyl]-4-methoxy-2-phenyl-6-propyl-, cis-,

PAGE 1-A



PAGE 2-A



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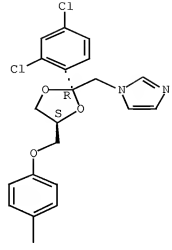
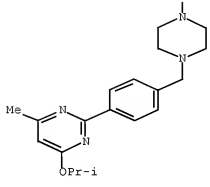
111920-95-7 Pyrimidine, 2-[4-[[4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]methyl]phenyl]-4-methyl-6-(1-methylethoxy)-, cis-,

PAGE 1-A



PAGE 2-A



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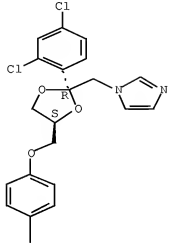
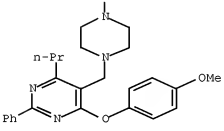
and 111943-51-2. Pyrimidine, 5-[[4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)- 1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]methyl]-4-(4-methoxyphenoxy)-2-phenyl-6-propyl-, cis-,

PAGE 1-A



PAGE 2-A



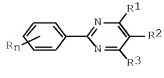
The claimed compositions are alkyl homologs and/or position isomers of Kampe compositions and obvious to the skilled chemist for the same utility. It would have been obvious to one of ordinary skill in the art when the present invention was made to modify the Kampe compositions to prepare alkyl homologs and position isomers thereof. One having ordinary skill in the art would have been motivated to prepare the instantly claimed compositions because such structurally homologous and position isomeric compositions are expected to possess similar properties. It has been held that compositions that are structurally homologous and position isomeric to prior art compositions are *prima facie* obvious, absent a showing of unexpected results.

An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed composition, in the expectation that compositions similar in structure will have similar properties. *In re Payne*, 203 USPQ 245, 254 (CCPA 1979). See also *In re Papesch*, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 16 USPQ2d 1897 (Fed. Cir. 1991) (discussed in MPEP § 2144) for an extensive case law review pertaining to obviousness based on close structural chemical composition similarity. See also MPEP 2144.08, ¶ II.A.4(c). Compositions that are homologs (compositions differing regularly by successive addition of the same chemical group, e.g., by CH3- groups) and position isomers (compositions differing by an adjacent or near adjacent functional group), as here, are generally of sufficiently close structural similarity that there is a presumed expectation that such compositions possess similar properties. *In re Wilder*, 195 USPQ 426 (CCPA 1977).

Response to Applicants' Remarks of 12-20-2010

In order to make the present rejection more understandable, the structures of the relevant compositions are illustrated above. As one of ordinary skill in this art can plainly see, each of the above Kampe compositions renders obvious the present claims.

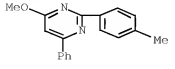
Claims 1-6, 8-11, 13, 14 and 31-36 are rejected under 35 USC 103(a) over Seiler, et al., EP 136976, published 19850410.



I

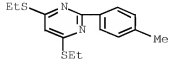
The phenylpyrimidines I (R = H, halo, NO2, CN, OH, alkyl, etc.; R1 and R2 = H, halo, alkyl, alkoxyalkyl, etc.; R3 = H, halo, alkyl, haloalkyl, or Ph) are plant growth regulators. See especially compositions of

RN 77232-23-6, Pyrimidine, 4-methoxy-2-(4-methylphenyl)-6-phenyl-,



, and

79382-50-6, Pyrimidine, 4,6-bis(ethylthio)-2-(4-methylphenyl)-,



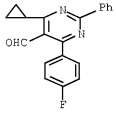
. The claimed compositions are alkyl homologs and/or position isomers of Seiler compositions and obvious to the skilled chemist for the same utility. See the discussion above of the obviousness of alkyl homologs.

Response To Applicants' Remarks of 12-20-2010

In order to make the present rejection more understandable, the structures of the relevant compositions are illustrated above. As one of ordinary skill in this art can plainly see, each of the above Seiler compositions renders obvious the present claims.

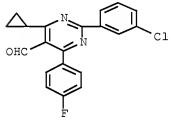
Claims 1, 11, 13, 31 and 40 are rejected under 35 USC 103(a) over Fujikawa, et al., US 5026708, issued 19910625, describing

RN 122930-78-3, 5-Pyrimidinecarboxaldehyde, 4-cyclopropyl-6-(4-fluorophenyl)-2-phenyl-,



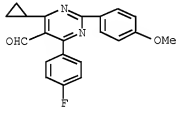
,

RN 122930-80-7, 5-Pyrimidinecarboxaldehyde, 2-(3-chlorophenyl)-4-cyclopropyl-6-(4-fluorophenyl)-,



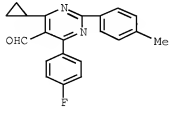
,

RN 122930-81-8, 5-Pyrimidinecarboxaldehyde, 4-cyclopropyl-6-(4-fluorophenyl)-2-(4-methoxyphenyl)-,



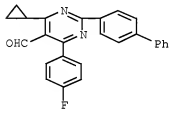
,

RN 122930-82-9, 5-Pyrimidinecarboxaldehyde, 4-cyclopropyl-6-(4-fluorophenyl)-2-(4-methylphenyl)-,



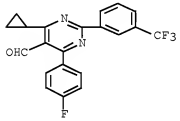
,

RN 122930-83-0, 5-Pyrimidinecarboxaldehyde, 2-[1,1'-biphenyl]-4-yl-4-cyclopropyl-6-(4-fluorophenyl)-,



, and

RN 122930-84-1, 5-Pyrimidinecarboxaldehyde, 4-cyclopropyl-6-(4-fluorophenyl)-2-[3-(trifluoromethyl)phenyl]-,



as antihyperlipemic agents. The claimed compositions are ring position isomers and/or alkyl homologs of Fujikawa compositions and obvious to the skilled chemist for the same utility. See the discussion above of the obviousness of alkyl homologs.

The claimed compositions are ring position isomers of Fujikawa compositions and obvious to the skilled chemist for the same utility. It would have been obvious to one of ordinary skill in the art when the present invention was made to modify Fujikawa compositions to prepare ring position isomers thereof. One having ordinary skill in the art would have been motivated to prepare the instantly claimed compositions because ring position isomeric compositions are expected to have similar properties. It has been held that compositions that are ring position isomeric to prior art compositions are *prima*

facie obvious, absent unexpected results.

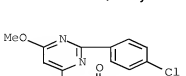
An obviousness rejection based on similarity in chemical structure and function entails motivation of one skilled in the art to make a claimed composition, in expectation that compositions similar in structure will have similar properties. *In re Payne*, 203 USPQ 245, 254 (CCPA 1979), *In re Papesch*, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 16 USPQ2d 1897 (Fed. Cir. 1991) (discussed in MPEP 2144) for an extensive case law review pertaining to obviousness based on close structural chemical composition similarity. See also MPEP 2144.08, ¶ II.A.4(c). Compositions that are ring position isomers (compositions differing by adjacent or near adjacent functional group) are generally of sufficiently close structural similarity that there is a presumed expectation such compositions possess similar properties. *In re Wilder*, 195 USPQ 426 (CCPA 1977).

Response To Applicants' Remarks of 12-20-2010

In order to make the present rejection more understandable, the structures of the relevant compositions are illustrated above. As one of ordinary skill in this art can plainly see, each of the above Fujikawa compositions renders obvious the present claims.

Claims 1, 11, 13, 31 and 40 are rejected under 35 USC 103(a) over Howe, et al., J. Med. Chem. (1972), 15(10), 1040-5, describing

RN 19899-98-0, 4-Pyrimidineacetic acid, 2-(4-chlorophenyl)-6-methoxy-, methyl ester,



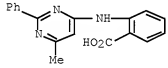
compositions, as an anti-inflammatory. The claimed compositions are ring position

isomers and/or alkyl homologs of Howe compositions and obvious to the skilled chemist for the same utility. See the discussion above of the obviousness of ring position isomers and/or alkyl homologs.

Response To Applicants' Remarks of 12-20-2010

In order to make the present rejection more understandable, the structures of the relevant compositions are illustrated above. As one of ordinary skill in this art can plainly see, the above Howe composition renders obvious the present claims.

Claims 37-39 are rejected under 35 USC 103(a) over Falch, et al., J. Med. Chem. (1968), 11(3), 608-11, describing RN17173-99-8, Benzoic acid, 2-[(6-methyl-2-phenyl-4-pyrimidinyl)amino]-, hydrochloride,



● HCl

, with antiinflammatory activity. The claimed compositions are ring position isomers and/or alkyl homologs of Falch composition and obvious to the skilled chemist for the same utility. See the discussion above of the obviousness of ring position isomers and/or alkyl homologs.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cecilia M. Jaisle whose telephone number is 571-272-

9931. The examiner can normally be reached on Monday through Friday; 8:30 am through 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. If you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cecilia M. Jaisle/
Examiner, Art Unit 1624

/James O. Wilson/
Supervisory Patent Examiner, Art Unit 1624